

**TOPIC:** How To Operate An In-Line Foam Eductor

TIME FRAME: :30

**LEVEL of INSTRUCTION:** Level II

**BEHAVIORAL OBJECTIVE:** 

Condition: An engine with the pump operating at 150 P.S.I. An in-line

foam eductor, 200' of 1-1/2" or 1-3/4" x 50' hose, 2-1/2" x 1 1/2" adapter, 95 GPM variable combination or foam nozzle and spanner wrench, and outdated or demo foam concentrate

Behavior: Student shall demonstrate how to produce a foam stream

using an in line eductor

Standard: With a minimum of 80% accuracy

**MATERIALS NEEDED:** ■ Engine

Structure fire PPE per CAL FIRE policy

1-1/2" or 1-3/4" fire hose2 1/2" x 1 1/2" adapter

In-line foam eductor

Outdated or demo foam concentrate in five (5) gallon

containers

Foam nozzle or 95 gpm combination fog nozzle/bale

Spanner wrench

**REFERENCES:** IFSTA, <u>Essentials of Fire Fighting</u>, 5th Edition, Chapter 14

Skill 14-11-1, Foam Manufacturer's information

**PREPARATION:** The ability to set up a foam producing operation in a minimum

amount of time could mean the difference between life and

death in a critical situation.



OPERATIONS KEY POINTS

- 1. Remove 2-1/2" pump discharge cap
- 2. Attach 2-1/2" to 1-1/2" reducer to pump discharge
- 3. Remove 50 or 100 foot section of 1-1/2" or 1 ¾" hose and attach to pump discharge
- 4. Attach male end of hose to in-line eductor
- 5. Attach 100 feet of 1-1/2" hose to outlet of eductor
- 6. Attach foam or fog nozzle
- 7. Extend hose
- 8. If eductor so designed as a return to eductor, set eductor to "foam or water"
- Adjust educator metering valve to appropriate percentage rating
- Insert eductor tube into foam concentrate container
- Open appropriate discharge valve at engine
- 12. Return to pump panel and set pressure
- 13. Open nozzle and apply foam

- 1a. Counter clockwise
- 2a. Clockwise
  - b. Spanner tight
- 3a. Clockwise
  - b. Spanner tight
- Female swivel on eductor counter clockwise
  - b. Spanner tight
- 5a. Clockwise
- 6a. Foot tilt method
  - b. At least 95 GPM nozzle
- 7a. Kink free
- 8a. To indicate foam or water
- 9a. Determined by the type of concentrate being used
- 11a. Slowly, fully
- 12a. Turn throttle counter clockwise
  - b. To manufacturer's recommended pressure
  - c. Approximately 150 P.S.I.
- 13a. Slowly, fully
  - Adjusted to give appropriate pattern/range for fire encountered

HOW TO OPERATE AN IN-LINE FOAM EDUCTOR

## OPERATIONS KEY POINTS c. To simulated fire

**Note:** When operation is completed, eductor should be washed with soap and water, and then flushed with clean water.



## **APPLICATION:**

Student will practice until proficient.

## **EVALUATION:**

A performance examination.

## **ASSIGNMENT:**

To be determined by instructor(s).